

48. *CHERA PROGNE* (op. cit. p. 458).
Common.
49. *PYROMELANA ORYX* (op. cit. p. 462).
Scarce.
50. *PYROMELANA CAPENSIS* (op. cit. p. 463).
Scarce.
51. *PYROMELANA TAHA* (op. cit. p. 465).
Scarce.
52. *ESTRElda ASTRILD* (op. cit. p. 470).
Common.
53. *URÆGINTHUS CYANOGASTER* (op. cit. p. 473).
Once shot near the town.
54. *PASSER ARCUATUS* (op. cit. p. 478).
Common.
55. *POLIOSPIZA TRISTRIATA* (op. cit. p. 482).
Rare.
56. *SERINUS CANICOLLIS* (op. cit. p. 488).
57. *TEPHROCORYS CINEREA* (op. cit. p. 511).
Common.
58. *MACRONYX CAPENSIS* (op. cit. p. 530).
Common.
59. *MOTACILLA CAPENSIS* (op. cit. p. 547).
Common.
60. *COLUMBA PHÆONOTA* (op. cit. p. 559).
Common.
61. *TURTUR CAPICOLA* (op. cit. p. 567).
Common.
62. *TURTUR SENEGALENSIS* (op. cit. p. 568).
Common.
63. *ÆNA CAPENSIS* (op. cit. p. 572).
Common.
64. *PTEROCLES GUTTURALIS* (op. cit. p. 577).
Scarce.

65. *FULICA CRISTATA* (op. cit. p. 621).

Common.

66. *ANTHROPOIDES PARADISEA* (op. cit. p. 628).

Scarce.

67. *OTIS KORI* (op. cit. p. 632).

Rare.

68. *OTIS CÆRULESCENS* (op. cit. p. 638).

Rare.

69. *OTIS AFROIDES* (op. cit. p. 642).

Rare.

70. *CURSORIUS RUFUS* (op. cit. p. 653).

Scarce.

71. *ÆGIALITIS TRICOLLARIS* (op. cit. p. 662).

Common.

72. *CHETTUSIA CORONATA* (op. cit. p. 670).

Common.

73. *GALLINAGO NIGRIPENNIS* (op. cit. p. 676).

Fairly common.

74. *HYDROCHELIDON HYBRIDA* (op. cit. p. 699).

A female from the city dam.

75. *ARDEA PURPUREA* (op. cit. p. 710).

Common.

76. *BUBULCUS IBIS* (op. cit. p. 717).

Scarce.

77. *SCOPUS UMBRETTA* (op. cit. p. 725).

Scarce.

78. *CICONIA ALBA* (op. cit. p. 728).

Common.

79. *CICONIA NIGRA* (op. cit. p. 729).

Rare.

80. *IBIS ÆTHIOPICA* (op. cit. p. 736).

Scarce.

81. *PLATALEA TENUIROSTRIS* (op. cit. p. 742).

Only once obtained.

82. *THALASSORNIS LEUCONOTA* (op. cit. p. 761).

Rare.

83. *PODICEPS MINOR* (op. cit. p. 787).

Fairly common.

II. *List of Birds of the Modderfontein District.*

I now give a list of 75 species which I have met with at Modderfontein or in the surrounding district, and add a few remarks.

1. *GYPS KOLBI* (Sharpe & Layard, B. S. Afr. p. 1).

Common.

2. *SERPENTARIUS SECRETARIUS* (op. cit. p. 8).

Scarce.

3. *BUTEO DESERTORUM* (op. cit. p. 30).

Rare.

4. *ELANUS CÆRULEUS* (op. cit. p. 52).

Common.

I have found the nest of this bird in mimosa-bushes, blue gums, and firs. The structure is a rough platform of twigs slightly depressed in the centre, and lined with hair, wool, twine, &c. The usual number of eggs is three or four. Le Vaillant gives their colour as white, but I have never found them so; they are more in accordance with the description given in Sharpe and Layard's work, and are very similar to those of the South African Kestrel.

A female shot as she flew from a nest contained an egg which had a pure white ground blotched with the usual markings.

5. *CERCHNEIS RUPICOLA* (op. cit. p. 62).

Fairly common. (See *Ibis*, 1901, p. 193.)

6. *CERCHNEIS RUPICOLoidES* (op. cit. p. 63).

Fairly common. (See *Ibis*, 1901, pp. 16, 192.)

7. *BUBO MACULOSUS* (op. cit. p. 73).

Fairly common.

I have hunted these Owls on several occasions and have been struck by their splendid protective coloration. I discussed this at some length in a paper read before the Johannesburg Field Naturalists' Club. Mr. W. L. Distant, who has noticed this paper, says that it is "conscious concealment." I quite agree that the bird consciously conceals itself, but I fail to see of what use this would be under the circumstances, if the Owl had not protective coloration to assist it.

8. *SCOPS CAPENSIS* (op. cit. p. 75).

Very rare.

I only saw one specimen of this little Owl during the whole of my four and a half years of residence at Modderfontein. An account of its habits in captivity, as well as of its soft parts, will be found in the 'Zoologist' for 1899, p. 420.

9. *ASIO CAPENSIS* (op. cit. p. 78).

Common.

I shot three specimens of this Owl one afternoon. Six of them flew out of the long grass bordering a spruit.

10. *STRIX CAPENSIS* (op. cit. p. 81).

Not common. I shot one in a eucalyptus-plantation.

11. *CAPRIMULGUS EUROPÆUS* (op. cit. p. 83).

Not common.

12. *CAPRIMULGUS RUFIGENA* (op. cit. p. 85).

Rare.

13. *CYPSELUS CAFFER* (op. cit. p. 92).

Scarce.

I found a nest of this Swift under an overhanging bank in a donga. It contained two eggs, which were white, and were very suddenly rounded off at the small end.

14. *CORYTHORNIS CYANOSTIGMA* (op. cit. p. 108).

Scarce. One commonly sees a pair along the spruit and dongas.

15. *CERYLE RUDIS* (op. cit. p. 110).

Fairly common.

16. *HALCYON CYANOLEUCA* (op. cit. p. 120).

Very rare. Only one shot.

17. *UPUPA AFRICANA* (op. cit. p. 134).

Common.

A female of this species dropped an egg in my hand one day, of a pure white covered with tiny pores.

18. *CHRYSOCOCCYX CUPREUS* (op. cit. p. 153).

Common.

19. *PYCNONOTUS LAYARDI* (op. cit. p. 815).

Fairly common.

20. *COSSYPHA CAFFRA* (op. cit. p. 224).

Common.

21. *SAXICOLA MONTICOLA* (op. cit. p. 246).

Fairly common.

22. *PRATINCOLA TORQUATA* (op. cit. p. 250).

Fairly common.

23. *DRYMÆCA FLAVICANS* (op. cit. p. 254).

Fairly common.

24. *CISTICOLA TERRESTRIS* (op. cit. p. 824).

Fairly common.

25. *APALIS THORACICA* (op. cit. p. 281).

Fairly common.

26. *NECTARINIA FAMOSA* (op. cit. p. 306).

Somewhat rare.

27. *CINNYRIS AMETHYSTINUS* (op. cit. p. 315).

Rare.

On the 3rd of September, 1899, I shot a young male of this species. I was puzzled by it, and therefore sent it to Mr. William Selater, of the Cape Town Museum, for identification. He said that it was of this species, but that the metallic sheen is usually developed on the forehead first, whereas this specimen had the whole of the throat of a

rich coppery colour and the head utterly devoid of metallic sheen.

Iris hazel-brown; bill and feet black. The bird was sucking the nectar from apple-blossoms, and uttered a plaintive "peep." On dissection it proved to be a male.

28. *HIRUNDO ALBIGULARIS* (op. cit. p. 364).

Scarce.

29. *HIRUNDO CUCULLATA* (op. cit. p. 370).

Scarce.

30. *LANIUS COLLARIS* (op. cit. p. 374).

Very common.

31. *LANIARIUS GUTTURALIS* (op. cit. p. 385).

Fairly common.

I have found the nest of this bird on several occasions in pea-bushes, with three eggs.

32. *BRADYORNIS SILENS* (op. cit. p. 404).

Fairly common.

33. *CORVUS CAPENSIS* (op. cit. p. 415).

Scarce.

I found a nest of this species on one occasion containing three eggs.

34. *CORVUS SCAPULATUS* (op. cit. p. 416).

Scarce.

35. *CORVULTUR ALBICOLLIS* (op. cit. p. 417).

Scarce.

36. *LAMPROCOLIUS PHENICOPTERUS* (op. cit. p. 425).

Fairly common.

37. *SPREO BICOLOR* (op. cit. p. 429).

Very common.

38. *AMYDRUS MORIO* (op. cit. p. 431).

Scarce.

39. *HYPHANTORNIS VELATUS* (op. cit. p. 439).

Fairly common.

40. *VIDUA PRINCIPALIS* (op. cit. p. 453).
Common.
41. *VIDUA ARDENS* (op. cit. p. 455).
Rare.
42. *CHERA PROGNE* (op. cit. p. 458).
Very common.
43. *PYROMELANA ORYX* (op. cit. p. 462).
Very common.
44. *PYROMELANA TAHA* (op. cit. p. 465).
Common at times.
45. *ESTRILDA ASTRILD* (op. cit. p. 470).
Common.
46. *ESTRILDA ERYTHRONOTA* (op. cit. p. 473).
Common.
47. *PASSER ARCUATUS* (op. cit. p. 479).
Very common.
48. *PASSER DIFFUSUS* (op. cit. p. 480).
Scarce.
49. *POLIOSPIZA GULARIS* (op. cit. p. 482).
Scarce.
50. *MACRONYX CAPENSIS* (op. cit. p. 530).
Common.
51. *MOTACILLA CAPENSIS* (op. cit. p. 547).
Common.
52. *COLUMBA PHÆONOTA* (op. cit. p. 559).
Scarce.
53. *TURTUR SEMITORQUATUS* (op. cit. p. 566).
Common.
54. *TURTUR CAPICOLA* (op. cit. p. 567).
Common.
55. *ŒNA CAPENSIS* (op. cit. p. 572).
Common.

56. *COTURNIX COTURNIX* (op. cit. p. 603).

Scarce.

57. *FULICA CRISTATA* (op. cit. p. 621).

Common.

58. *GALLINULA CHLOROPUS* (op. cit. p. 623).

Scarce.

59. *GALLINULA ANGULATA* (op. cit. p. 624).

Scarce.

60. *OTIS CAFFRA* (op. cit. p. 634).

Scarce.

61. *OTIS AFROIDES* (op. cit. p. 642).

Not common.

62. *ÆDICNEMUS CAPENSIS* (op. cit. p. 645).

Fairly common.

63. *CURSORIUS RUFUS* (op. cit. p. 653).

Fairly common.

64. *ÆGIALITIS TRICOLLARIS* (op. cit. p. 662).

Fairly common.

I found two fledglings on the mud amongst the weeds bordering one of the dams on November 20th, 1899. They were of a reddish-brown tint washed with blackish.

65. *CHETTUSIA CORONATA* (op. cit. p. 670).

Common.

66. *TOTANUS CANESCENS* (op. cit. p. 687).

Very rare. Only one shot.

67. *NUMENIUS ARQUATA* (op. cit. p. 692).

Very scarce.

I shot one specimen, and presented it to the Pretoria Museum.

68. *ARDEA CINEREA* (op. cit. p. 708).

Fairly common.

69. *ARDEA PURPUREA* (op. cit. p. 710).

Somewhat scarce.

70. HERODIAS GARZETTA (op. cit. p. 716).

Somewhat scarce.

71. NYCTICORAX GRISEUS (op. cit. p. 724).

Scarce. Only one shot.

72. SCOPUS UMBRETTA (op. cit. p. 725).

Common.

73. THALASSORNIS LEUCONOTA (op. cit. p. 761).

Common at times.

On April 21st, 1900, I took a nest of this Duck in a dam near here. It was placed on some weeds in about three feet of water, twenty yards from the shore. The eggs were six in number and of a greenish creamy-brown colour.

74. PODICEPS CRISTATUS (op. cit. p. 785).

Fairly common.

75. PODICEPS MINOR (op. cit. p. 787).

Fairly common.

XXXVI.—*Field-notes on Birds seen and collected during Eight Months' Stay on the Ruo and Shiré Rivers, B.C.A., 1898-99.* By A. BLAYNEY PERCIVAL, F.Z.S. *With Corrections and Additions by R. T. REID.*

[ALTHOUGH we have published in 'The Ibis' a long series of papers on birds transmitted to us from Nyasaland by Sir Harry Johnston, Col. Manning, Mr. Sharpe, and other kind friends, so little has been recorded of the mode of life of the feathered tribes of that country that we have thought it worth while to put together the field-notes made by Mr. A. Blayney Percival during his recent sojourn in the southern districts of British Central Africa.

Mr. Percival writes as follows:—

“During my stay of between seven and eight months in British Central Africa in 1898-99, I camped chiefly on the banks of the Shiré and Ruo Rivers, as being best suited to my requirements, and made Chiromo my headquarters and the general base for all my operations. Looking through

my diary, I find a most monotonous reference to fever. Much of my best work was spoiled because of this terrible plague of African life, and many a day's hunting was cut short by a sudden rise in my temperature. In England one talks of the weather, in Africa a man asks after your temperature.

"The journey to Chiromo up the Zambesi and Shiré Rivers is one full of interest to the naturalist. Bird-life abounds, hippopotami are constantly seen, and crocodiles are far too numerous to be agreeable. I had one very unpleasant experience, and that not quickly forgotten. One of the crew made a slip and went overboard, and though every effort was made to save him, he was quickly dragged under water and disposed of by these hungry brutes.

"During September 1898 I went up to the next station on the Shiré (Katunga's) in a steam-launch. The number of birds seen was marvellous, the trees overhanging the river being often entirely covered with Egrets or Ibises—in the first case looking quite white and in the latter black. But, for really startling beauty, nothing can come up to the Carmine-throated Bee-eaters. A hundred of these bright birds flitting along the river-banks in the sunshine is a sight never to be forgotten. We saw on this trip many water-birds—Ducks, Geese, Herons, and Waders. Among them was the pretty Spur-winged Plover, which warns the crocodiles and hippopotami of danger by its shrill whistle.

"After my dealings with Kaffirs and Zulus, I found the natives of Central Africa very trying. Where one boy had previously served for all my wants, I here needed three. My usual household was composed of five, but on hunting-days it swelled to twelve or fourteen, the prospect of fresh meat never failing to bring them in. My camp was a very simple affair, consisting of a light canvas tent, with kitchen-tent for boys, and so I was able to move about without much trouble.

"Central Africa, in the Chiromo district, is well summed up by men who know it as 'a paradise for the naturalist and a hell for fevers.'"

Mr. Percival is now in the British East African Service

and is Resident at Takunga (see above, p. 354, and 'Ibis,' 1901, p. 524).

Mr. Percival exhibited some of his birds and read notes on them at the meeting of the Zoological Society of June 6th, 1899 (see P. Z. S. 1899, p. 714).

Mr. R. J. Reid has kindly revised and arranged Mr. Percival's Field-notes.—EDD.]

1. *CORVUS SCAPULATUS* Daud. ; Shelley, Ibis, 1897, p. 531.

The common scavenger of Chiromo ; it is to be seen everywhere about the town, often in company with Vultures.

2. *DILOPHUS CARUNCULATUS* (Gm.) ; Shelley, Ibis, 1897, p. 531.

Only once seen, in August 1898, and then in a very large flock.

3. *PHOLIDAUGES VERREAUXI* Bocage ; Shelley, Ibis, 1894, p. 19.

A few seen during February and March.

4. *BUCHANGA ASSIMILIS*.

Dicrurus afer (Licht.) ; Shelley, Ibis, 1897, p. 532.

Rare, no specimens obtained.

5. *ORIOIUS LARVATUS* Licht. ; Shelley, Ibis, 1897, p. 531.

Not common, but a fair number observed, usually in pairs.

6. *VIDUA PRINCIPALIS* (Linn.) ; Shelley, Ibis, 1896, p. 237.

Common in the marshes.

7. *STEGANURA PARADISEA* (Linn.) ; Shelley, Ibis, 1897, p. 529.

Not rare in the marshes.

8. *PENTHETRIA ARDENS* (Bodd.).

Coliipasser ardens Shelley, Ibis, 1896, p. 237.

Common in the marshes.

9. *PYROMELANA XANTHOMELÆNA* (Rüpp.) ; Shelley, Ibis, 1896, p. 237.

a. Ad. Ruo, January 1899.

10. ZONOGASTRIS MELBA (Linn.) ; Shelley, *Ibis*, 1894, p. 22.

a. Ad. Ruo River, February 1899.

Rare, always found in pairs.

11. HYPOCHERA FUNEREA (De Tarrag.) ; Shelley, *Ibis*, 1894, p. 21.

Rare.

12. ESTRILDA MINOR (Cab.) ; Shelley, *Ibis*, 1894, p. 22.

Very common.

13. ESTRILDA ANGOLENSIS (Linn.) ; Shelley, *Ibis*, 1893, p. 26.

Numerous in December in company with another small Waxbill.

14. HYPHANTORNIS XANTHOPTERUS Finsch & Hartl. ; Shelley, *Ibis*, 1893, p. 24.

Very common in the Elephant-marsh to the north of Chiromo.

15. CINNYRIS GUTTURALIS (Linn.).

A few seen about Ruo, but the bird was by no means common. It was just building in March, when I left.

16. ENNEOCTONUS COLLURIO (Linn.) ; Shelley, *Ibis*, 1894, p. 15.

Some were observed in December and January.

17. PRIONOPS TALACOMA Smith ; Shelley, *Ibis*, 1897, p. 532.

A few flocks of this species were seen near Liadzi.

18. SIGMODUS TRICOLOR (Gray) ; Shelley, *Ibis*, 1894, p. 470.

a. ♂ juv. Ruo, September 1898.

b. ♀. Ruo, November 18, 1898.

Common in the stretch of waterless country between Ruo and Liadzi, and also to the west of the Shiré ; never seen near the rivers and very wary.

19. CRATEROPUS KIRKI Sharpe ; Shelley, *Ibis*, 1897, p. 534.

a. ♀. Ruo River, September 1898.

Common in the reed-beds of Ruo and Liadzi. Difficult to shoot, as it keeps low down in the reeds and bushes. Very noisy. Usually seen in parties of five or six.

20. *MUSCICAPA CÆRULESCENS* (Hartl.) ; Shelley, *Ibis*, 1897, p. 542.

a. Ad. Ruo River, November 1898.

21. *BIAS MUSICUS* (Vieill.) ; Sharpe, *Cat. B. Brit. Mus.* iv. p. 142 (1879).

a. ♀. Ruo River, November 17, 1898.

One female obtained and one other seen.

22. *SMITHORNIS CAPENSIS* (Smith) ; Shelley, *Ibis*, 1894, p. 14.

One only obtained, two others seen, in thick bush.

23. *TERPSIPHONE PERSPICILLATA* (Swains.) ; Shelley, *Ibis*, 1896, p. 234.

Not uncommon ; I found one nest, in February.

24. *HIRUNDO SMITHI* Leach ; Sharpe, *Cat. B. Brit. Mus.* x. p. 150 (1885).

a. Ad. Chiromo, November 1898.

Breeding on almost every house in Chiromo, often inside the rooms. It builds a nest like the Common Martin, but of course much smaller. It is very tame.

25. *HIRUNDO PUELLA* Temm. ; Shelley, *Ibis*, 1894, p. 469.

a. Ad. Ruo River, August 1898.

Fairly common.

26. *PSALIDOPROCNE HOLOMELÆNA* (Sund.) ; Sharpe, *Cat. B. Brit. Mus.* x. p. 292 (1885).

A few were seen in shady parts of the bush, but seldom in the open during sunshine.

27. *PSALIDOPROCNE PERCIVALI* Grant, *Bull. B. O. C.* viii. p. lv (1899).

Psalidoprocne, sp. inc., Percival, *P. Z. S.* 1899, p. 715.

a. Ad. Ruo, August 1898. (Type of the species.)

This small but interesting Swallow was obtained at the